



**CONESTOGA-ROVERS  
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November 16, 2012

Reference No. 056394-06

Ms. Sheila Desai  
Remedial Project Manager  
United States Environmental Protection Agency - Region 5  
77 West Jackson Boulevard (SR - 6J)  
Chicago, Illinois 60604 - 3590

Dear Ms. Desai:

Re: Responses to U.S. EPA Comments  
Polychlorinated Biphenyls-Impacted Soil in the Area of MW-16  
Former Plainwell, Inc. Mill Property Operable Unit No. 7  
Allied Paper, Inc./Portage Creek/Kalamazoo River Superfund Site  
Allegan and Kalamazoo County

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Conestoga-Rovers & Associates (CRA) has prepared this letter, on behalf of the Weyerhaeuser Company (Weyerhaeuser), in response to the October 16, 2012 United States Environmental Protection Agency's (U.S. EPA's) comments on the *Revised Summary of Additional Remedial Investigation Activities, PCB-Impacted Soil in the Area of MW-16, Former Plainwell, Inc. Mill Property, Plainwell, Michigan* memorandum (Memorandum) for the former Plainwell, Inc. Mill Property (Site), which was submitted on September 7, 2012 along with Weyerhaeuser's responses to U.S. EPA's August 7, 2012 comments on the *Summary of Additional Remedial Investigation Activities, PCB-Impacted Soil in the Area of MW-16, Former Plainwell, Inc. Mill Property, Plainwell, Michigan* memorandum submitted June 22, 2012.

The following presents responses to the U.S. EPA's comments on the aforementioned September 7, 2012 submittals. Three copies of the revised Memorandum are attached for your use.

**U.S. EPA August 7, 2012 General Comment #1**

*In Section 2.0 (Page 2-1), the text states that soil borings were advanced to 10 feet below ground surface (bgs) and groundwater was encountered at 8 to 10 feet bgs. The conclusion section (Section 6.0) states that some of the highest PCB concentrations in soil were detected just above the water table; however, no groundwater samples were collected. Because PCBs were not detected at elevated concentrations in soil deeper than 6 feet bgs at locations MW-16 and subsequent adjacent soil boring SB-2020, it is not surprising that PCBs were not detected in groundwater at well MW-16. Absence of PCBs in groundwater at well MW-16 does not preclude the possibility of impacts on groundwater at other locations where PCB concentrations were elevated in soil just above the water table. Groundwater samples should be collected at locations where PCBs were detected in soil just above the water table, including locations between MW16 and the Mill Race to assess whether groundwater has been impacted in this area.*

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### **September 7, 2012 Response**

The comment is acknowledged and Weyerhaeuser agrees that absence of polychlorinated biphenyls (PCBs) in groundwater at MW-16 does not preclude the possibility of PCB impacts in groundwater in this area. However, if PCBs are present in groundwater resulting from the soil just above the water table where elevated PCB concentrations were present, then the anticipated remedial approach would be removal of the PCB source material followed by post-remedial groundwater monitoring for PCBs. Given the nature and extent of PCBs present in this area, including soils just above the water table, Weyerhaeuser anticipates that soil removal will be completed to remove the soils containing the elevated PCBs. Regardless of whether PCBs are present in groundwater at this time, the anticipated approach of soil and groundwater in this area would not change (i.e., soil removal followed by groundwater monitoring). Therefore, Weyerhaeuser does not propose the collection of groundwater samples in this area as part of the Remedial Investigation. Further language has been added to the memorandum to discuss the potential impacts to groundwater and Weyerhaeuser's rationale.

### **U.S. EPA October 16, 2012 Response**

*EPA is still considering this approach. EPA would like more detail on how Weyerhaeuser plans to monitor groundwater in conjunction with soil remediation in this area to determine if any potential impacts of PCBs have been fully addressed.*

### **November 16, 2012 Response**

Subsequent to the removal of the soils containing the elevated PCBs and restoration of the area, Weyerhaeuser anticipates installation of monitoring well(s) to evaluate the potential presence of PCBs in groundwater in this area. It is anticipated that this will be conducted in conjunction with an overall post remedial action groundwater monitoring program for the Site, consistent with the selected remedial measures that will be set forth in the Record of Decision.

### **U. S. EPA August 7, 2012 Specific Comment #1**

*Section 2.1, Page 2, Paragraph 3. The text states that each soil interval was examined for visual/olfactory evidence of impacts. The results presented in Section 5.0 should be revised to discuss whether any impacts were observed at each of the depth intervals sampled.*

### **September 7, 2012 Response**

Section 5.0 of the memorandum has been revised to include a paragraph which discusses the field impacts observed during soil boring installation and whether any of the impacts relate to the PCB concentrations present in the soil samples.



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**U.S. EPA October 16, 2012 Response**

*This is acceptable.*

**November 16, 2012 Response**

This response is acknowledged.

**U. S. EPA August 7, 2012 Specific Comment #2**

*Section 6.0, Page 5, Paragraph 5. The conclusions section should include an explanation or statement regarding the source(s) and site-relatedness of the identified PCB contamination. The measured PCB concentrations are relatively high, localized, and unlikely to be associated with other non-site-related activities. The text should discuss whether any site-related pipes, tanks, or other operational pieces (units) are present (or formerly were present) in this area that might be related to the identified PCB contamination.*

**September 7, 2012 Response**

Further discussion of the potential sources of the PCB-impacted materials has been added to Section 6.0 of the revised memorandum. It should be noted that historical record reviews and available information have not identified any potential sources such as Site-related pipes, tanks, electrical equipment, or other operations in this area that could potentially be the source of the PCB impacts. Instead, it is more likely that the PCBs present are related to the Mill Race located immediately adjacent to this area. The rationale for this premise includes the following:

- The PCB impacts are highest moving away from the building and toward the Mill Race. Limited Site-related operations have historically occurred in this area of the Site.
- Although some Aroclor 1254 is present in this area, the highest concentrations of PCBs detected are Aroclor 1242 and Aroclor 1248, which are generally observed in impacted sediment related to the Kalamazoo River.
- The location of the impacted material is in close proximity to where the dam for the Mill Race is located; therefore, historically, this would be an area where higher levels of sedimentation from upstream would be expected. Although aerial photography of sufficient quality to accurately document changes to the Mill Race bank do not exist, the aerial photography and historical Site information available suggest that some modifications to the bank configuration has occurred over time.



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- PCBs observed in the soil samples collected in this area appear to be associated with a gray clay material that is present in the soil borings in this area. Where the highest PCB concentrations are observed, the gray clay material is present above a coarse sandy gravel layer, which is consistent with a river bed material.

**U.S. EPA October 16, 2012 Response**

*Please reword the text in Section 6.0 that currently states "...it is presumed that the likely source of the elevated PCBs observed in the investigation area is the adjacent Mill Race" to "one possibility is that the source of the elevated PCBs observed in the investigation area may be the adjacent Mill Race".*

**November 16, 2012 Response**

Section 6.0 of the memorandum has been revised to include the language requested above.

**U. S. EPA August 7, 2012 Specific Comment #3**

*Section 6.0, Page 5, Paragraph 5. The text should either conclude that the PCB contamination extends to the Mill Race or recommend advancement of additional borings closer to the Mill Race in an attempt to establish an alternate boundary of the extent of contamination. In addition, the extent of contamination south/southeast of boring SB-2030 is not defined. The text should be revised either to indicate the need for additional borings in this area for defining the extent of PCB impacts or to provide rationale for no further sampling.*

**September 7, 2012 Response**

The memorandum did not comment on the extent of PCB-impacted material toward the Mill Race since this area is not technically part of the Site (i.e., Site is defined to the top of the riverbank). As noted in the Response to Specific Comment No.2, given the premise that the source of the material is the Mill Race, it is anticipated that PCB-impacted material is present to some degree between the row of soil borings located along the top of the riverbank toward the Mill Race. The conclusions of the memorandum have been revised to be consistent with this discussion. Given the logistical challenges with installing additional soil borings toward the Mill Race (i.e., steep slope and close proximity to the water), Weyerhaeuser does not propose further investigation of this material but instead anticipates this area will be addressed through remedial activities.



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With respect to delineation of PCB impacts to the south of soil boring SB-2030, the impacts observed in this soil boring are below the Michigan Act 451, Part 201 soil criteria for Non-Residential use, which is the appropriate standard for this portion of the Site (i.e., commercial use). Therefore, unless the land use in this area changes, there is no need to further delineate the extent of PCB impacts further to the south. The text of the memorandum has been modified to include this rationale for no further sampling.

**U.S. EPA October 16, 2012 Response**

*Since the criteria being used for comparing PCB analytical results are the residential and non-residential direct contact numbers shown in Table 2, it would be helpful to actually state these values in Section 5.0 and in the legend on Figures 3A-3E.*

**November 16, 2012 Response**

Section 5.0 of the memorandum and Figures 3A through 3E have been revised to include the requested reference to the Part 201 Residential and Non-Residential Direct Contact Criteria for PCBs.

Should you have any questions with regard to this letter, please do not hesitate to contact the undersigned.

Yours truly,

CONESTOGA-ROVERS & ASSOCIATES

Gregory A. Carli, P. E.

JQ/ejh/21/Pwl.

Encl.

cc: Paul Bucholtz (MDEQ) – 3 copies  
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